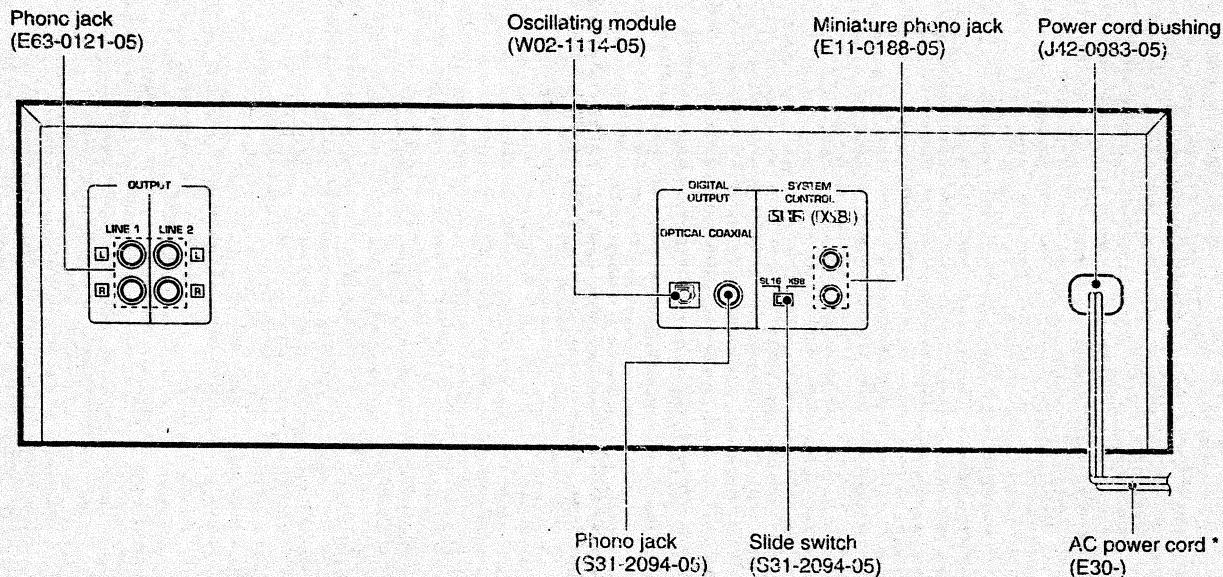
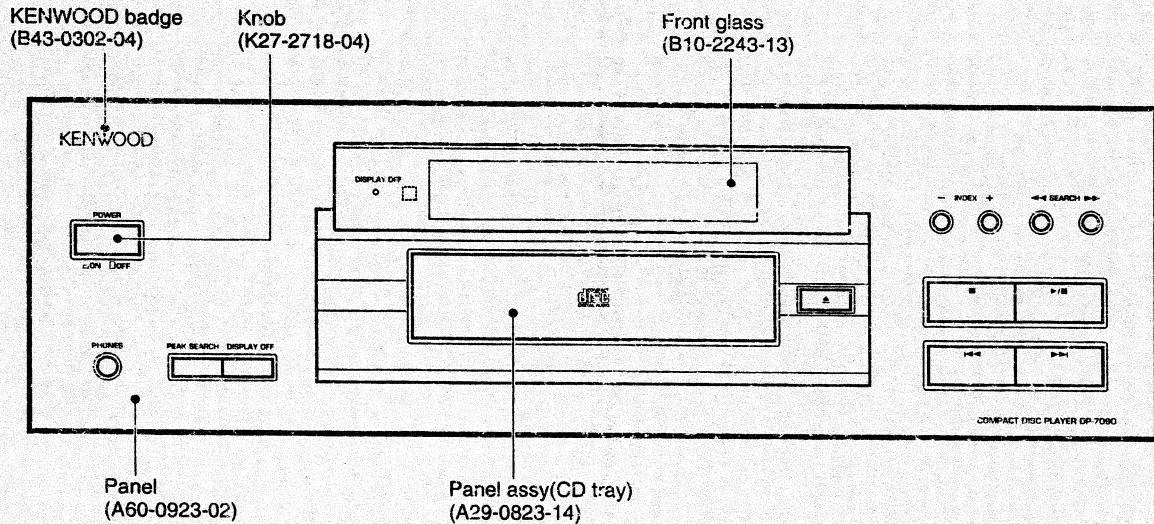


COMPACT DISC PLAYER
DP-7090
 SERVICE MANUAL

KENWOOD

© 1996-8/B51-5217-00 (K/K) 718



* Refer to parts list on page 23.



In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

KENWOOD-Corp. certifies this equipment conforms to DHHS Regulations No. 21 CFR1040. 10, Chapter 1, Subchapter J.

DANGER : Laser radiation when open and interlock defeated. AVOID DIRECT EXPOSURE TO BEAM.

DP-7090

CONTENTS / ACCESSORIES / CAUTIONS

Contents

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PC BOARD	9

Accessories

Audio cord	(1)	System control cord	(1)	AC plug adaptor	(1)
					
Remote control unit	(1)	Batteries (R6/AA)	(2)		
					
Battery cover (A05-0170-08)					

Accessories only for regions
where use is necessary.

Cautions

Note related to transportation and movement

Before transporting or moving this unit, carry out the following operations.

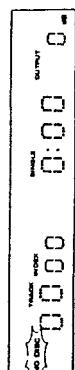
1. Turn the power ON but do not load a disc.
2. Wait a few seconds and verify that the display shown appears.
3. Turn the power OFF.

Beware of condensation

When water vapor comes into contact with the surface of cold material, water droplets are produced. If condensation occurs, correct operation may not be possible. On the unit may not function correctly. This is not a malfunction, however, and the unit should be dried. (To do this, turn the POWER switch ON and leave the unit for several hours.)

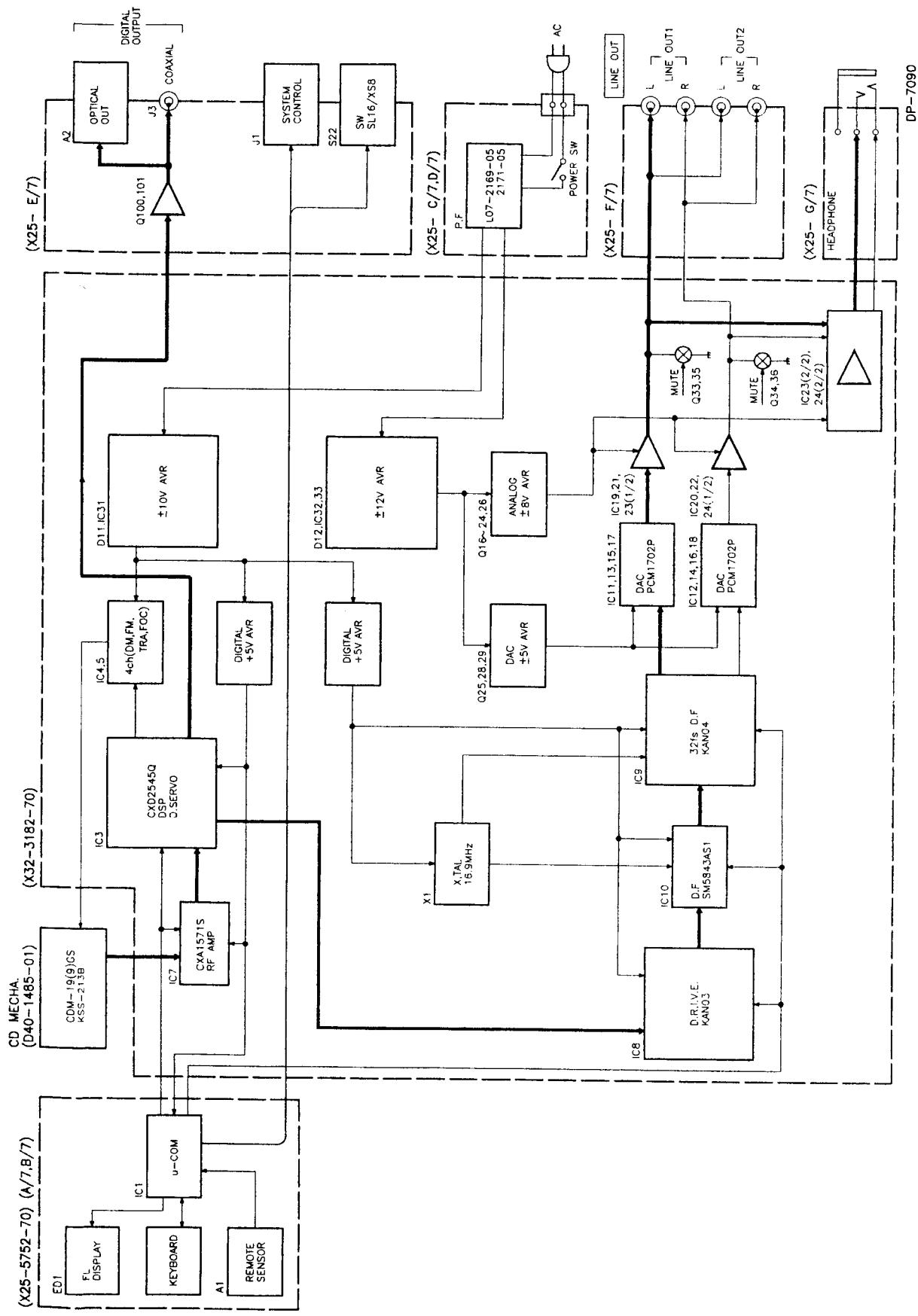
Be especially careful in the following conditions:

- When the unit is brought from a cold place to a warm place, and there is a large temperature difference.
- When a heater is operating.
- When the unit is brought from an air-conditioned place to a place of high temperature with high humidity.
- When there is a large difference between the internal temperature of the unit and the ambient temperature, or in conditions where condensation occurs easily.



DP-7090

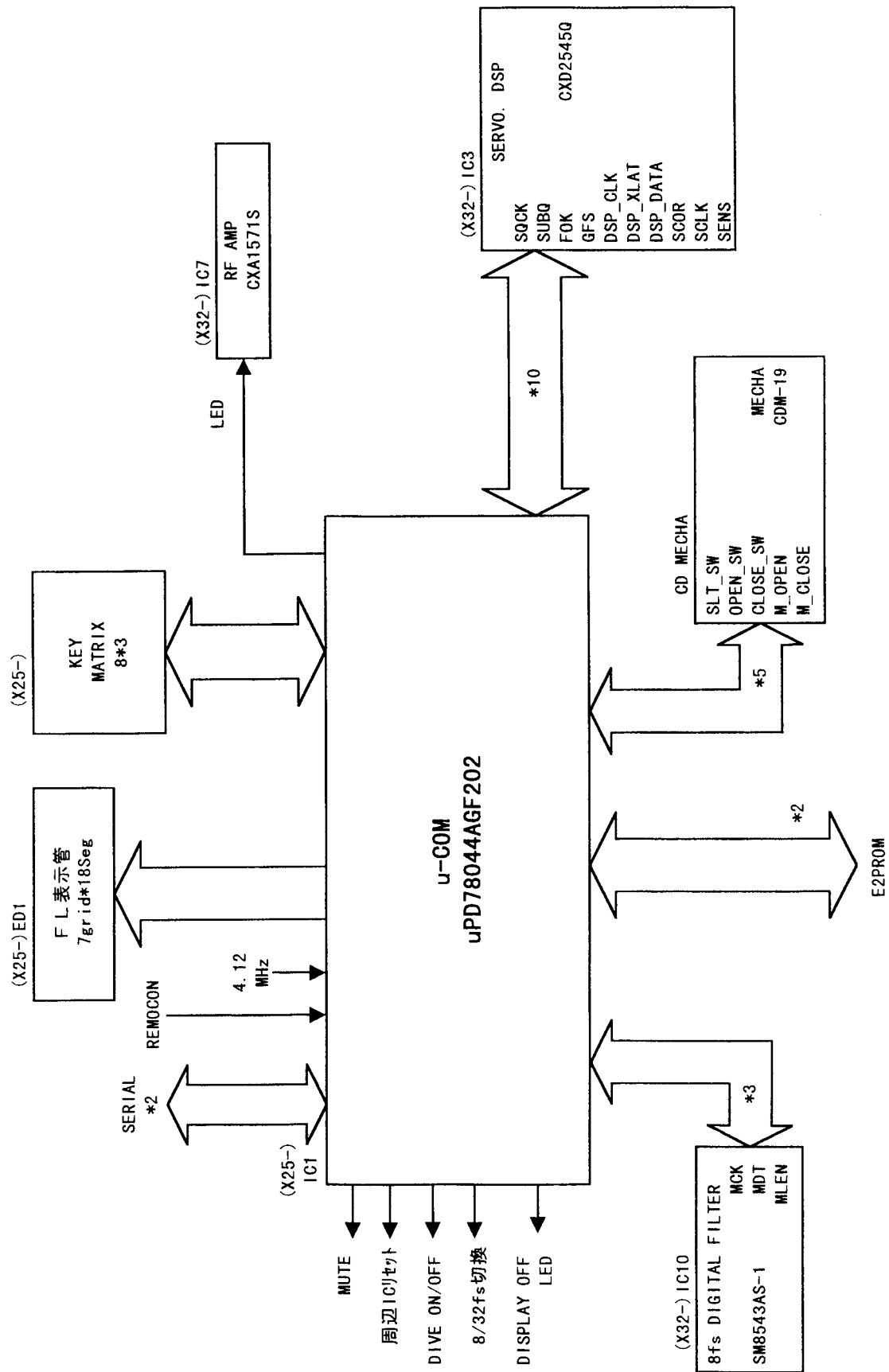
BLOCK DIAGRAM



DP-7090

CIRCUIT DESCRIPTION

1. Microprocessor uPD78044AGF202(X25- IC1)



DP-7090

CIRCUIT DESCRIPTION

DP-7090

2. Pin description

No.	Name	I/O	Description
1	GRID_1	O	FL grid signal output. Grid 1
2	GRID_3	O	FL grid signal output. Grid 3
3	GRID_4	O	FL grid signal output. Grid 4
4	GRID_7	O	FL grid signal output. Grid 7
5	GRID_6	O	FL grid signal output. Grid 6
6	GRID_5	O	FL grid signal output. Grid 5
7	GRID_2	O	FL grid signal output. Grid 2
8	Vdd		Power supply.
9	SOCK	O	Q data reading clock output to CXD2545Q.
10		O	No used.
11	SUBQ	I	Q data / RF jitter value of CXD 2545Q is read.
12	DIG_SEL1	O	Digital input selector control of TC9245.
13	DIG_SEL2	O	Digital input selector control of TC9245.
14	EMPHASYS	I	Emphasis on / off detection of TC9245.
15	FS_DET2	I	Sampling frequency detection of TC9245.
16	FS_DET1	I	Sampling frequency detection of TC9245.
17	RESET		Reset for u-COM
18	OPEN_SW	I	Tray open switch signal input.
19	CLOSE_SW	I	Tray close switch signal input.
20	AVss		No used (GND)
21	M_CLOSE	O	Tray open motor drive signal output.
22	M_CLOSE	O	Tray close motor drive signal output.
23	SLT_SW	I	Start limit switch signal input from pick up
24	LDC	O	Laser output
25	CD_DI	O	CD / outsite digital input switched.
26	MCk	O	Drive clock output.
27	MDT	O	Drive data output.
28	MLEN	O	Drive latch
29	Add		No uses (Vdd)
30	AVref		No used (GND)
31	ERROR	I	Error signal input from TC9245.
32			L : ERROR detection.
33	Vss		No used (OPEN)
34	X1		4.19MHz system clock input.
35	X2		4.19MHz system clock input.
36	SDATA	I/O	Serial data signal input / output.
37	SBUSY	I/O	Serial busy signal input / output.
38	MUTE	O	Digital Analog mute control output.
39	FROM_SDA	O	E2PROM data control.
40	PROM_SCL	O	E2PROM clock control.

No.	Name	I/O	Description
41	DSP_Clk	O	Clock output to CXD2545
42	DSP_XLAT	O	Data latch output to CXD2545
43	DSP_DATA	O	Data output to CXD2545
44	SCOR	I	Sub-code synchro detection signal input from CXD2545
45	SCLK	O	Clock output for SENS signal to CXD2545
46	XRST	O	Reset output to periphery IC.
47	REM_IN	I	Remote control signal input
48	IC		Connects to Vss
49	SEFR8_16	I	Serial 8 / 16 bit switching detection.
50	SENS	I	SEMS signal input from CXD2545
51	T_8_32	O	Field test 1. 8 / 32fs switching
52	Vdd		Power supply
53	T_DR_OFF	O	Field test2. Drive circuit on / off switching
			H : DRIVE ON
54	KR2	I	Key return 2
55	KR1	O	Key return 1
56	KR0	I	Key return 0
57	LOCK	I	LOCK signal input from CXD 2545
58	FOK	I	FOK signal input from CXD 2545
59	S_D	O	FL segment d
60	S_Q	O	FL segment q
61	S_R/KS7	O	FL segment r and key scan 7 combined uses.
62	S_N/KS6	O	FL segment n and key scan 6 combined uses.
63	S_P/KS5	O	FL segment p and key scan 5 combined uses.
64	S_O/KS4	O	FL segment o and key scan 4 combined uses.
65	S_E/KS3	O	FL segment e and key scan 3 combined uses.
66	S_C/KS2	O	FL segment c and key scan 2 combined uses.
67	S_G/KS1	O	FL segment g and key scan 1 combined uses.
68	S_F/KS0	O	FL segment f and key scan 0 combined uses.
69	S_B	O	FL segment b
70	S_A	O	FL segment a
71	Vload		Negative voltage supply for FL...
72	S_M	O	FL segment m
73	S_H	O	FL segment : h
74	S_L	O	FL segment : l
75	S_K	O	FL segment : k
76	S_J	O	FL segment : j
77	S_I	O	FL segment : i
78	DIG_LED1		Digital in 1 / Display off LED display.
79	DIG_LED2		Digital in 2 LED display
80	DIG_LED3		Digital in 3 LED display

DP-7090

CIRCUIT DESCRIPTION

DP-7090

ADJUSTMENT

3. KEY MATRIX

6 8 K. SCAN 0	5 6 KR0	5 5 KR1	5 4 KR2
	DIG. INSEL	PEAK SEARCH	DISPLAY
			(7 0 9 0)
		REPEAT	(7 0 0 2 / 5 0 0 2)
6 7 K. SCAN 1	STOP	PLAY / PAUSE	INDEX +
6 6 K. SCAN 2	SKIP DOWN	SKIP UP	INDEX -
6 5 K. SCAN 3	FB	FF	OPEN / CLOSE
6 4 K. SCAN 4	DIODE 1	DIODE 2	
6 3 K. SCAN 5			
6 2 K. SCAN 6			

0 : non diode / 1 : diode

4. DIODE MATRIX (Model distinction)

	5 6 KR0 (DIODE 1)	(D 3 3)	5 5 KR1 (DIODE 2) (D 6)
6 4 S O	DP - 7 0 9 0	0	1
	DP F - 7 0 0 2	0	0
	DP F - 5 0 0 2	1	0

5. Test mode

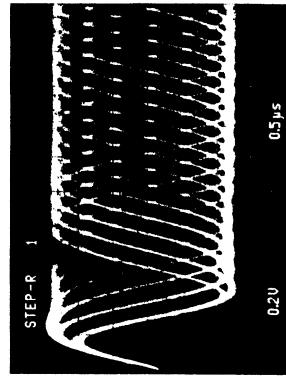
(MODE : Adjustment/Inspection (Self adjustment confirmation))

	INPUT key	DISPLAY	Action	Note
1	The power supply is turned on while pressing PEAK SEARCH key.	0 1	Test mode	TIME display turn-off
2	PLAY/PAUSE key	0 5 ↓ 0 3	Cyclic action with 05 mode	03 mode: Focus servo only on condition. 05 mode: Play condition without reading TOC.
3	UP key	— ↓	All illumination (FL, LED)	When other key are pressed this mode is canceled.
4	DOWN key	—	Cancelling a test mode it become usual play condition.	Only STOP condition is effective TIME display turn-off.
5	FF key	0 1	Feed	Only STOP condition is effective TIME display turn-off.
6	FB key	0 1	Feed	Only STOP condition is effective TIME display turn-off.
7	STOP key	0 7 ↓ 0 8	Doing STOP it becomes 07 mode conditions. (self adjustment completion condition) A display content changes a limit cyclically when STOP key is pressed consecutively.	* PGM / PGM CHECK : self adjustment is ignored at the time of NG determination and even NG item flickers. * EF, FB, FE excludes from OK/NG determination with hexadecimal number. * A numerical value of each item is indicated (EF : EF balance FB : focus bias) (EF : EF balance FB : focus bias) 07 mode → — : — 08 mode → — : — 09 mode → — : 08 ~ CD 10 mode → 3F ~ CO : 19 ~ EG
8	O / C		Open/close of a tray	A test mode does not cancel. A clear is done only as a result of self adjustment.

No.	ITEM	INPUT SETTING	OUTPUT SETTING	PLAYER SETTING	ALIGNMENT POINT	ALIGN FOR	FIG.
1	FOCUS ERROR BALANCE	Test disc Type 4	Connect an oscilloscope as follows. CH1 : RF(CN3 pin1)	Set the unit to test mode. Press the PLAY key, then display is "05".	FE BALANCE VR 1	Optimum eye pattern.	(a)

Note :
Type 4 disc : SONY YEDS-18 TEST Disc or equivalent.
Step 1 is in Test Mode. (Test Mode : Turn power on with pressing PEAK SEARCH key.)

FIG. (a)

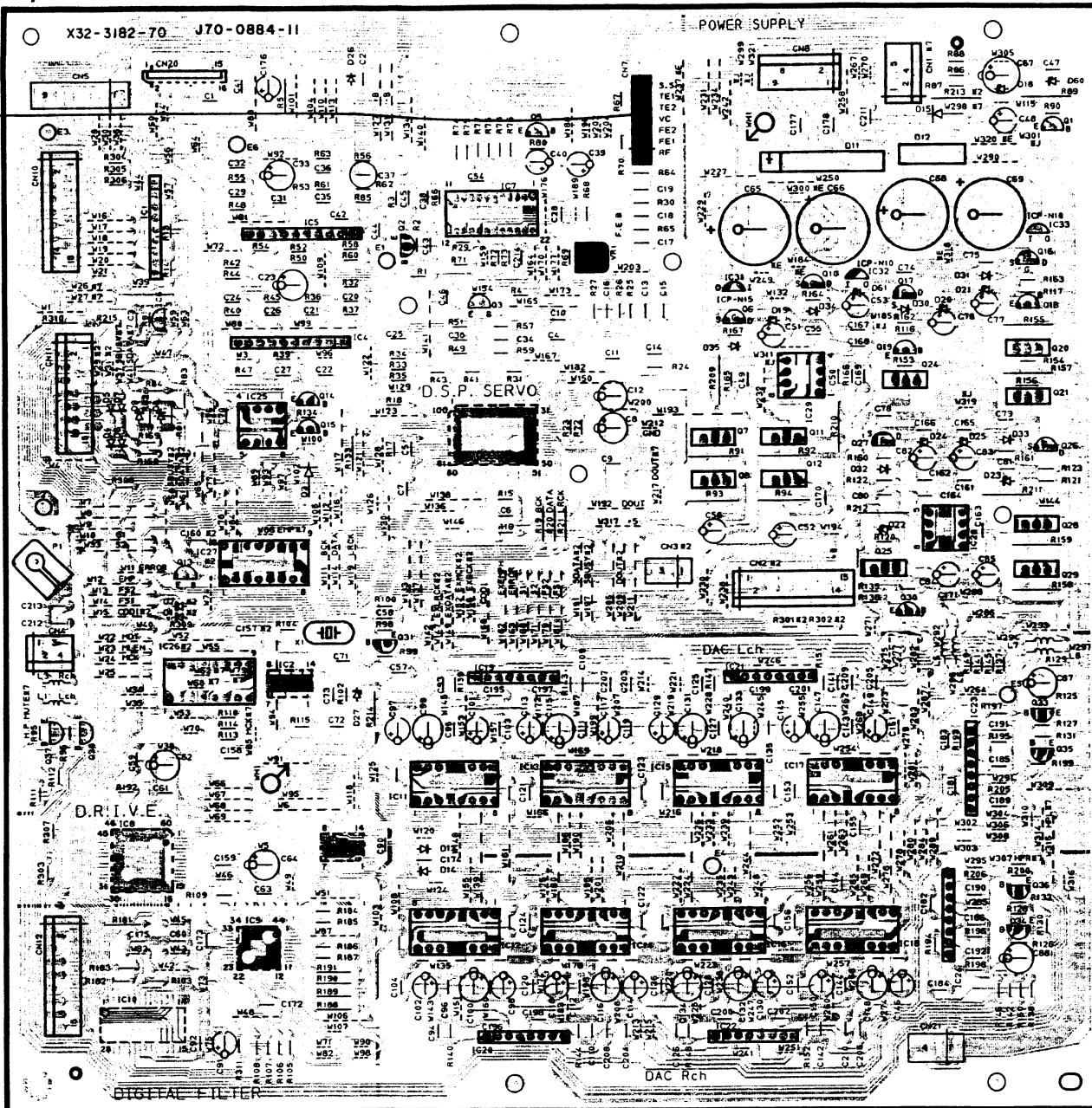
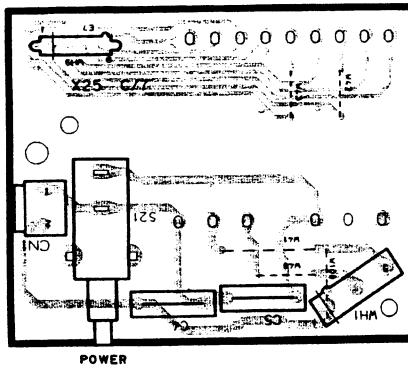


- RF signal in test mode (PLAY).
- Perform the tangential and focusing offset are focused into one point on the display. The crossing points above and below the center shall also be locked clearly. (FE BALANCE)

PC BOARD (COMPONENT SIDE VIEW)

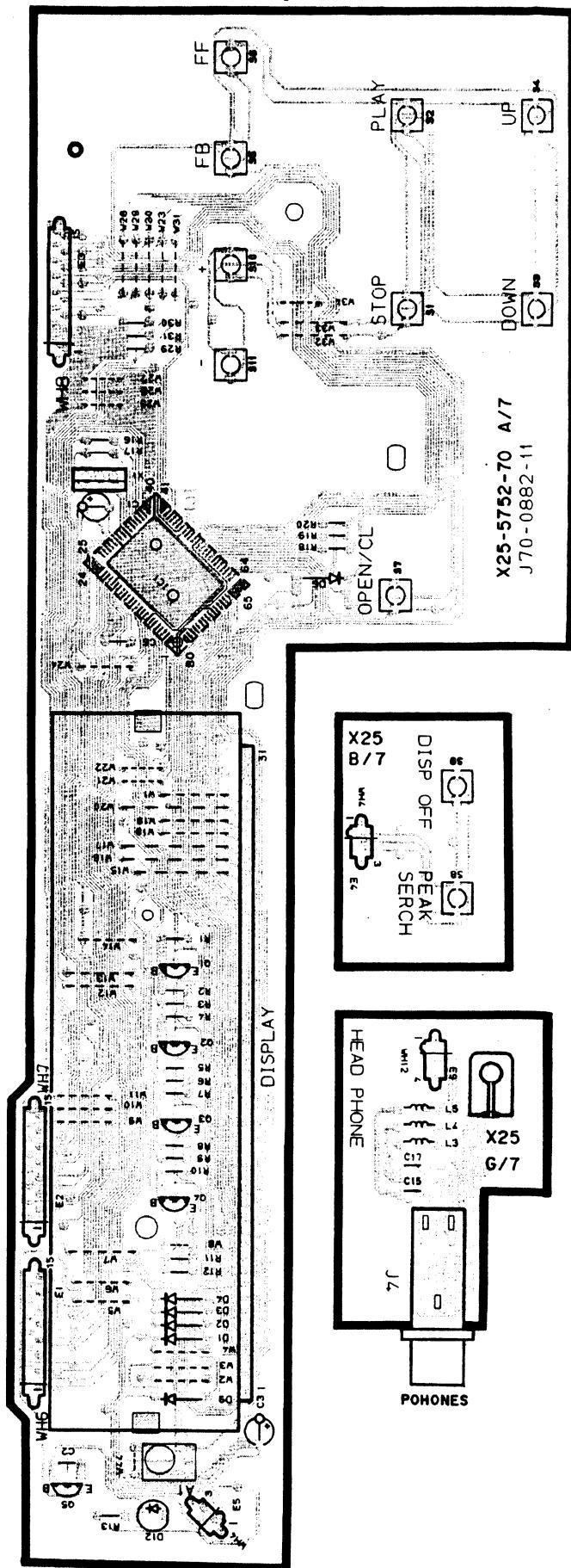
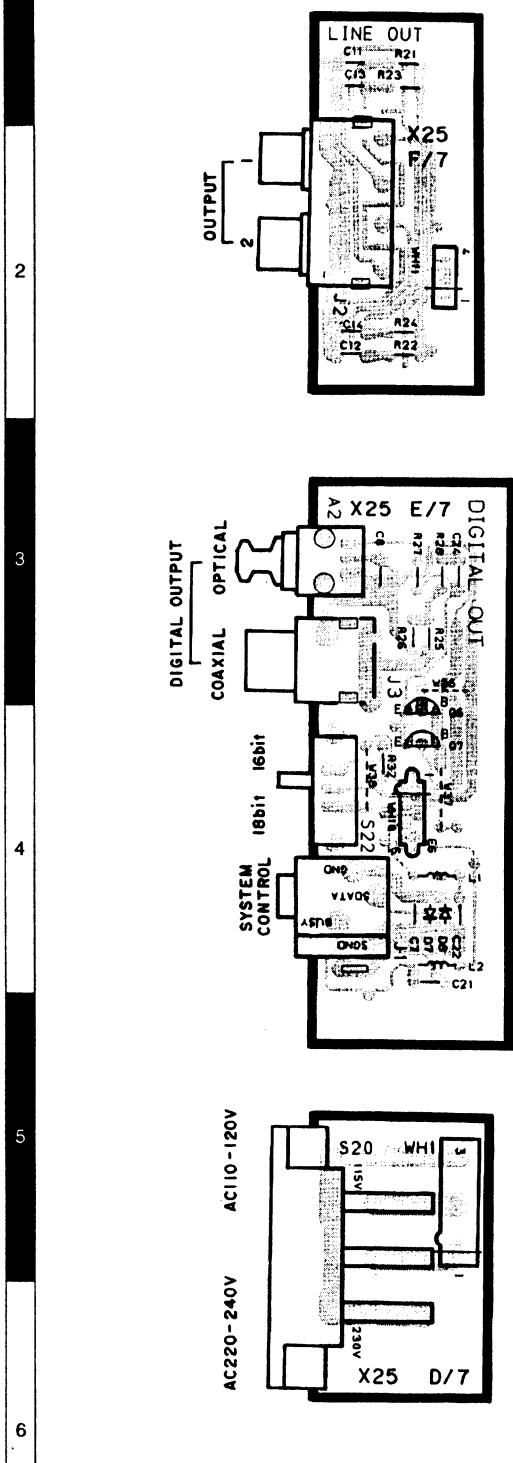
CD PLAYER UNIT (X32-3182-70)

(a) Focus error balance :
Optimum eye pattern



PC BOARD (COMPONENT SIDE VIEW)

DISPLAY UNIT (X25-5752-70)



Refer to the schematic diagram for the value of resistors and capacitors.

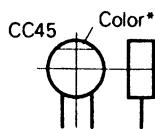
DP-7090

PARTS DESCRIPTIONS

CAPACITORS

CC 45 TH 1H 220 J
 1 2 3 4 5 6

- 1 = Type ... ceramic, electrolytic, etc.
- 2 = Shape ... round, square, ect.
- 3 = Temp. coefficient
- 4 = Voltage rating
- 5 = Value
- 6 = Tolerance



• Capacitor value

010 = 1pF
 100 = 10pF
 101 = 100pF
 102 = 1000pF = 0.001μF
 103 = 0.01μF

2 2 0 = 22pF
 T T Multiplier
 2nd number
 1st number

• Temperature coefficient

1st Word	C	L	P	R	S	T	U
Color*	Black	Red	Orange	Yellow	Green	Blue	Violet
ppm/°C	0	-80	-150	-220	-330	-470	-750

2nd Word	G	H	J	K	L
ppm/°C	±30	±60	±120	±250	±500

Example : CC45TH = $-470 \pm 60 \text{ ppm/}^{\circ}\text{C}$

• Tolerance (More than 10pF)

Code	C	D	G	J	K	M	X	Z	P	No code
(%)	±0.25	±0.5	±2	±5	±10	±20	+40	+80	+100	More than 10μF -10 ~ +50

Code	B	C	D	F	G
(pF)	±0.1	±0.25	±0.5	±1	±2

(Less than 10pF)

• Voltage rating

1st word	2nd word	A	B	C	D	E	F	G	H	J	K	V
0		1.0	1.25	1.6	2.0	2.5	3.15	4.0	5.0	6.3	8.0	-
1		10	12.5	16	20	25	31.5	40	50	63	80	35
2		100	125	160	200	250	315	400	500	630	800	-
3		1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	-

• Chip capacitors

(EX) C C 7 3 F S L 1 H 0 0 0 J
 1 2 3 4 5 6 7

Refer to the table above.

- 1 = Type
- 2 = Shape
- 3 = Dimension
- 4 = Temp. coefficient
- 5 = Voltage rating
- 6 = Value
- 7 = Tolerance

(Chip) (CH, RH, UJ, SL)

(EX) C K 7 3 F F 1 H 0 0 0 Z
 1 2 3 4 5 6 7

(Chip) (B, F)

Dimension (Chip capacitors)

Dimension code	L	W	T
Empty	5.6 ± 0.5	5.0 ± 0.5	Less than 2.0
A	4.5 ± 0.5	3.2 ± 0.4	Less than 2.0
B	4.5 ± 0.5	2.0 ± 0.3	Less than 2.0
C	4.5 ± 0.5	1.25 ± 0.2	Less than 1.25
D	3.2 ± 0.4	2.5 ± 0.3	Less than 1.5
E	3.2 ± 0.2	1.6 ± 0.2	Less than 1.25
F	2.0 ± 0.3	1.25 ± 0.2	Less than 1.25
G	1.6 ± 0.2	0.8 ± 0.2	Less than 1.0

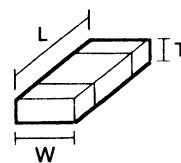
RESISTORS

• Chip resistor (Carbon)

(EX) R K 7 3 E B 2 B 0 0 0 J
 1 2 3 4 5 6 7

(Chip) (B, F)

Dimension



• Carbon resistor (Normal type)

(EX) R D 1 4 B B 2 C 0 0 0 J
 1 2 3 4 5 6 7

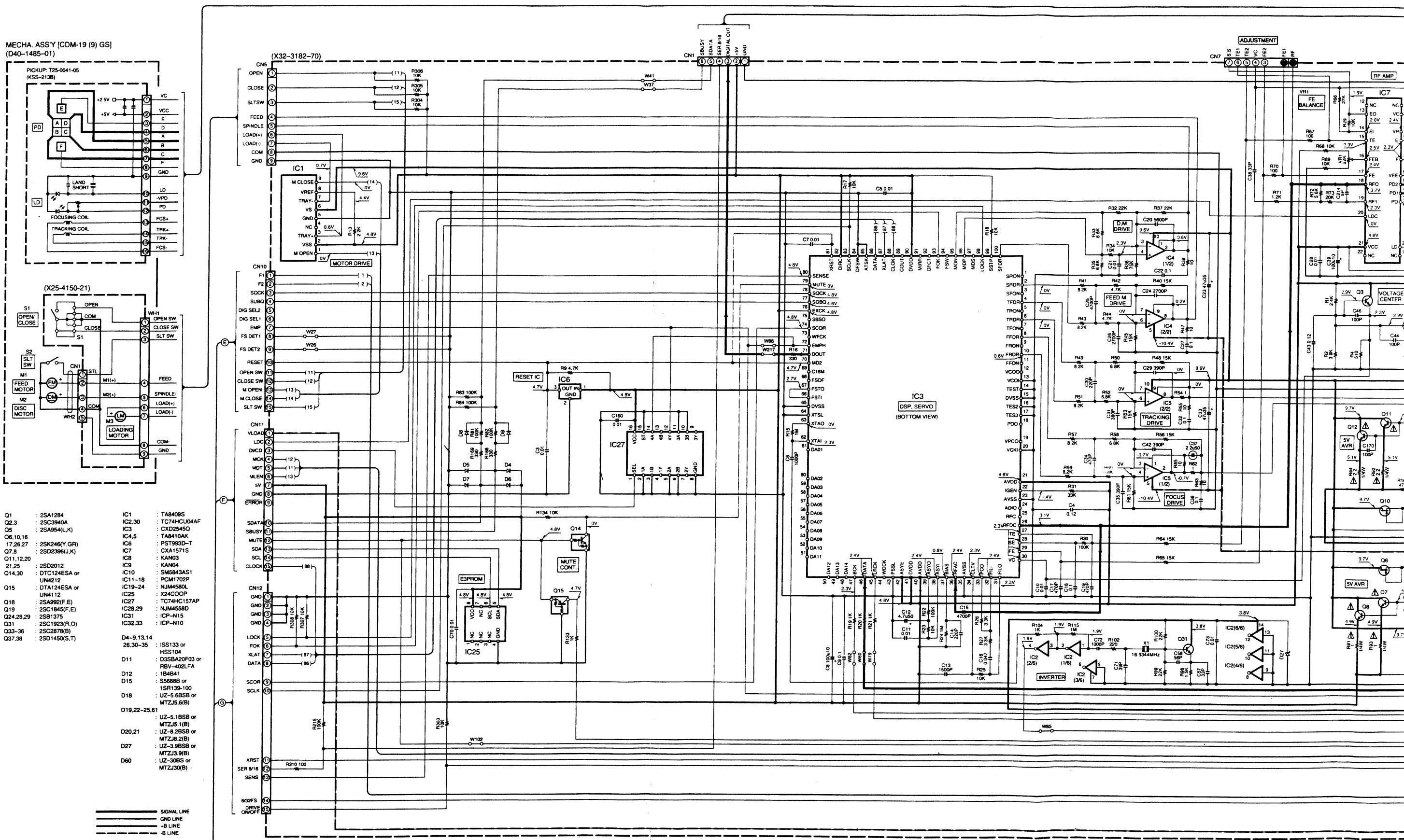
Dimension (Chip resistor)

Dimension code	L	W	T
E	3.2 ± 0.2	1.6 ± 0.2	1.0
F	2.0 ± 0.3	1.25 ± 0.2	1.0
G	1.6 ± 0.2	0.8 ± 0.2	0.5 ± 0.1

- 1 = Type
- 2 = Shape
- 3 = Dimension
- 4 = Temp. coefficient
- 5 = Rating wattage
- 6 = Value
- 7 = Tolerance

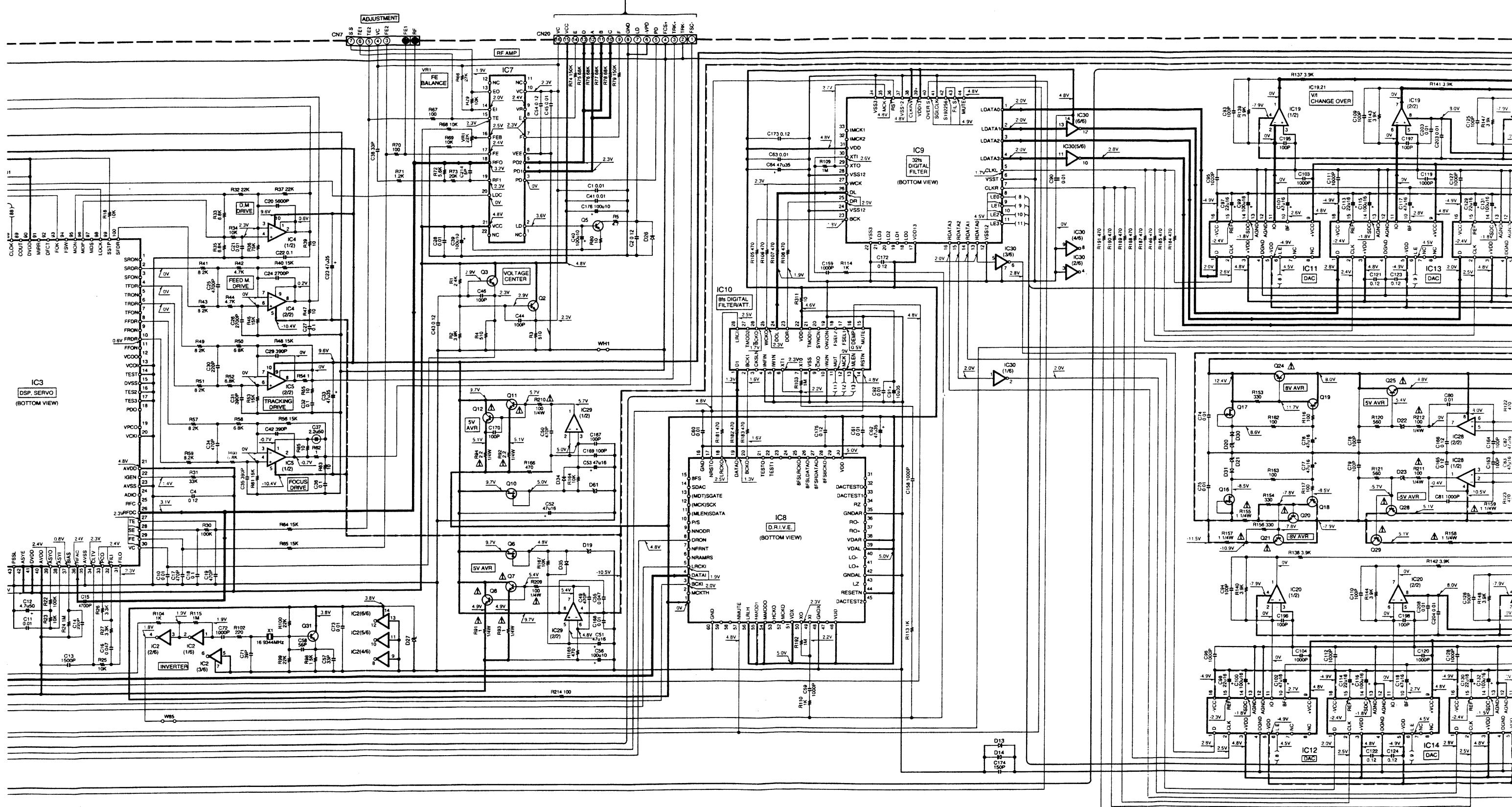
Rating wattage

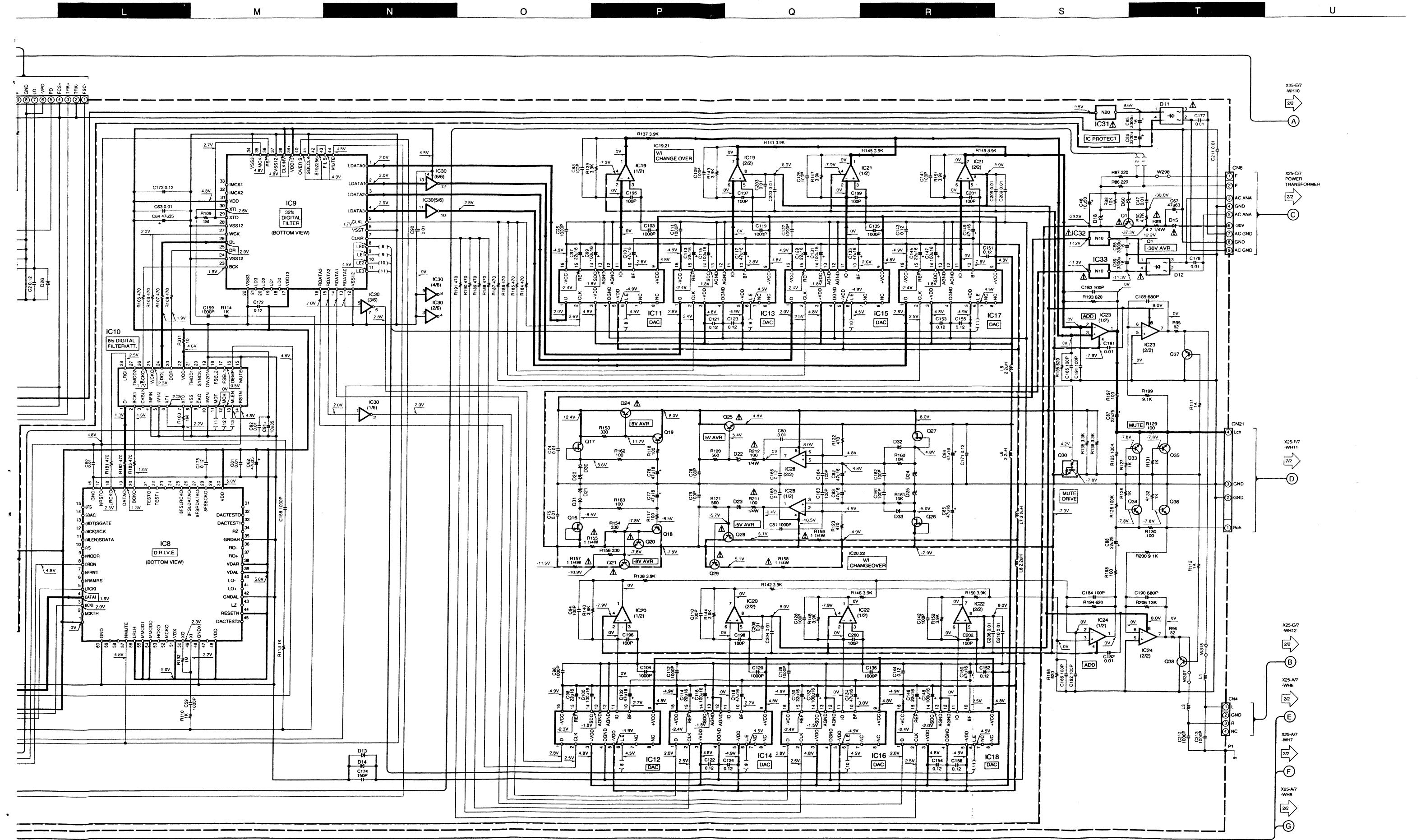
Code	Wattage	Code	Wattage	Code	Wattage
1J	1/16W	2C	1/6W	3A	1W
2A	1/10W	2E	1/4W	3D	2W
2B	1/8W	2H	1/2W		



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter. The measurement value may vary depending on the measuring instruments used or on the product. Refer to the voltage during PLAY unless otherwise specified; The value shown in () is the voltage measured at the moment of STOP.

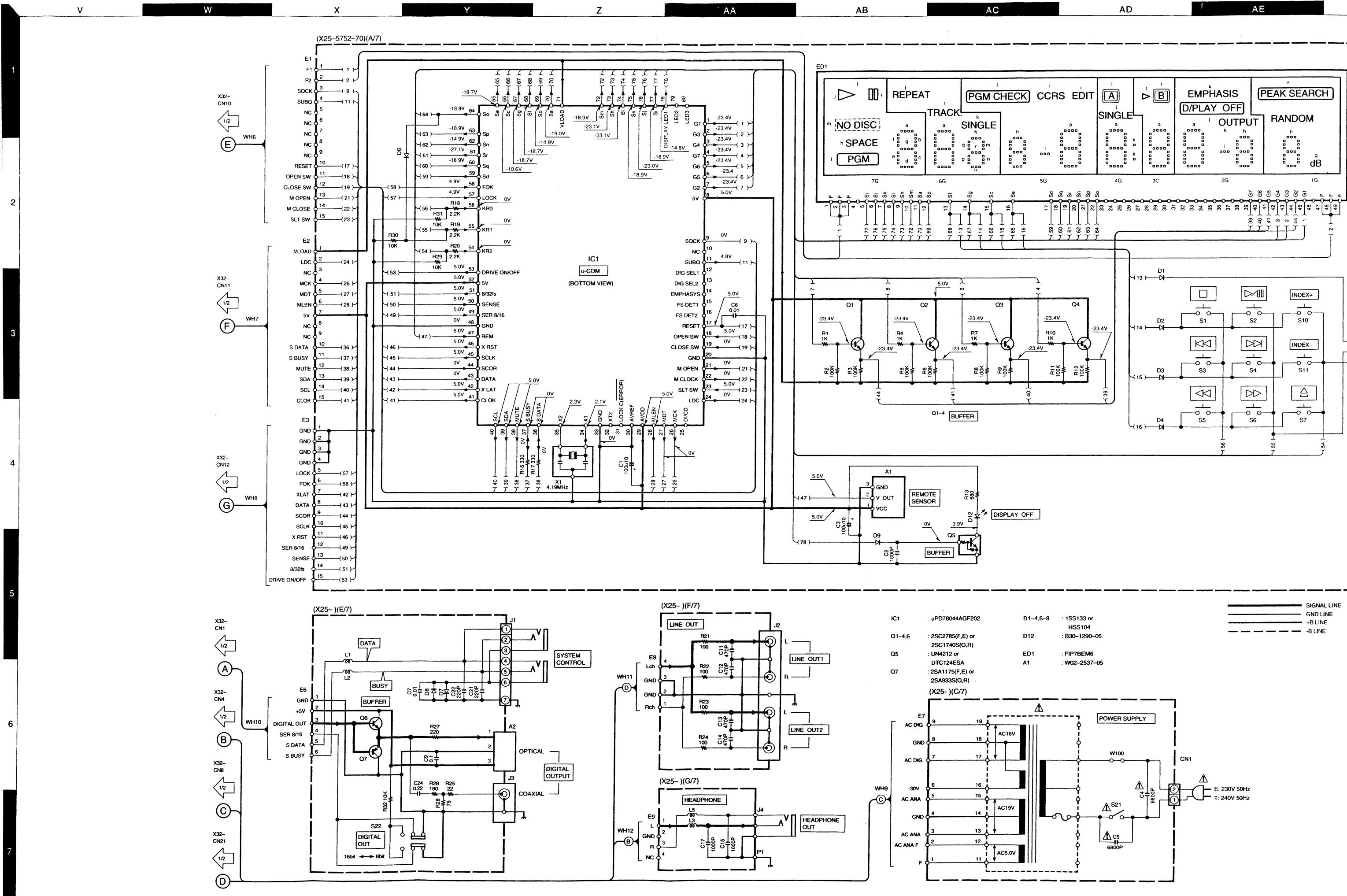




DP-7090(E) (1/2)

DP-7090
KENWOOD

Y22-4602-70



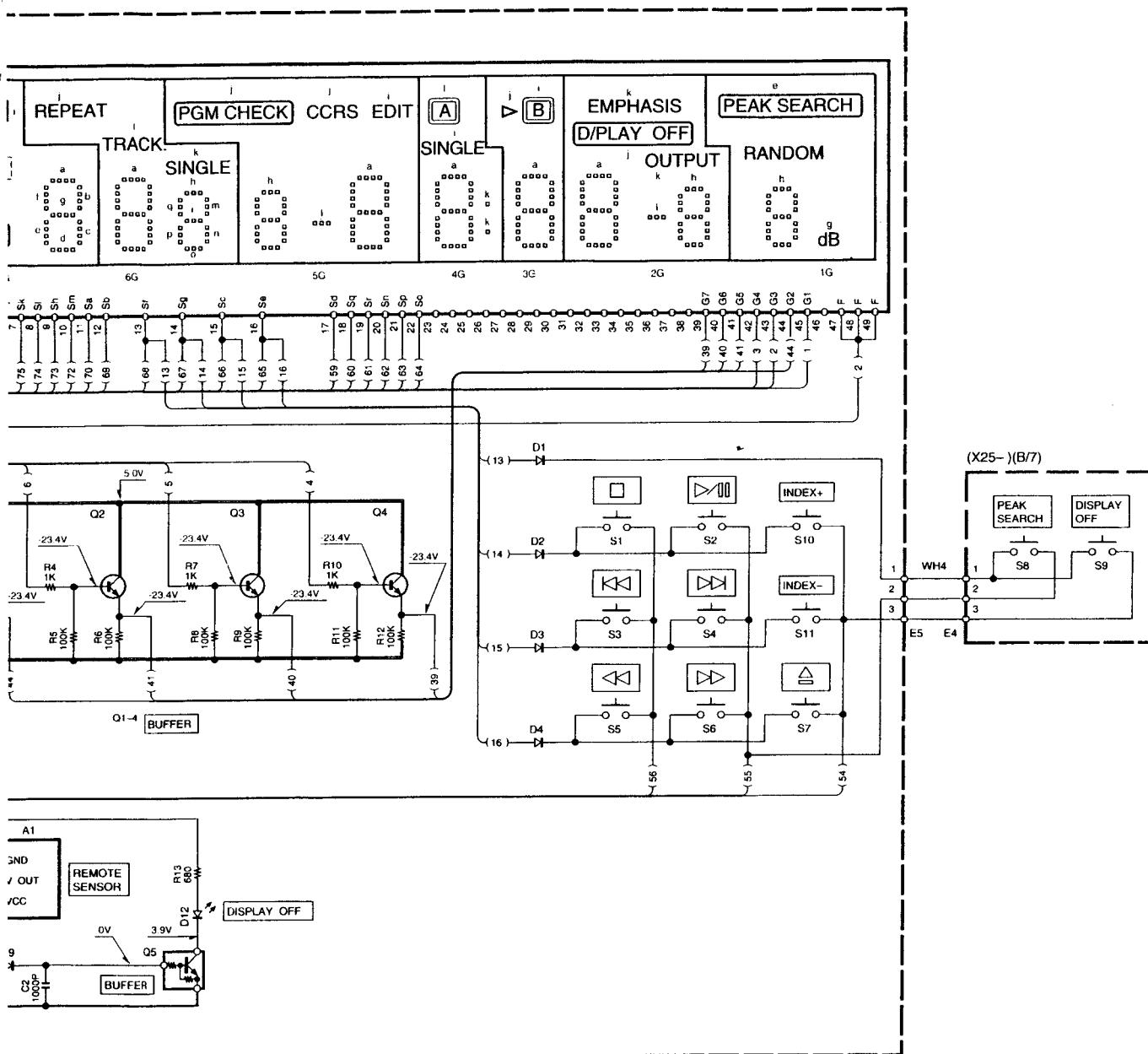
AC

AD

AE

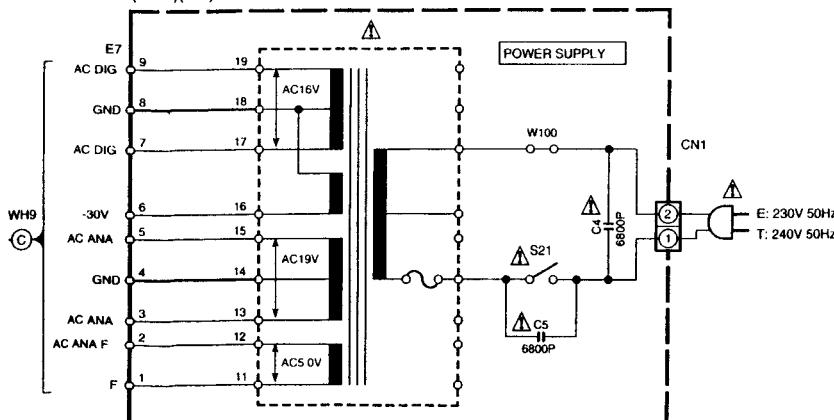
AF

AG



IC1 : uPD78044AGF202 D1-4,6-9 : 1SS133 or HSS104
 Q1-4,6 : 2SC2785(F,E) or 2SC1740S(Q,R) D12 : B30-1290-05
 Q5 : UN4212 or DTC124ESA ED1 : FIP7BEM6
 Q7 : 2SA1175(F,E) or 2SA933S(Q,R) A1 : W02-2537-05
 (X25-)(C/7)

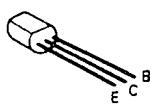
SIGNAL LINE
 GND LINE
 +B LINE
 -B LINE



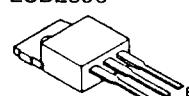
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter. The measurement value may vary depending on the measuring instruments used or on the product. Refer to the voltage during PLAY unless otherwise specified. The value shown in () is the voltage measured at the moment of STOP.

2SA1284
2SA954
2SA992
2SC1845
2SC1923
2SC2878
2SC3940A



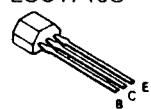
2SD2396



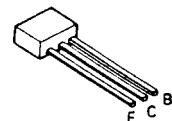
2SA1175
2SC2785



DTA124ESA
DTC124ESA
UN4112
2SC1740S



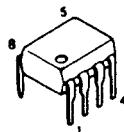
UN4212



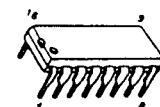
2SB1375
2SD2012



NJM4558D
X24C00P



PCM1702P



TA8409S



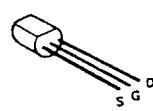
NJM4580L



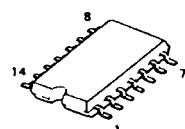
TA8410AK



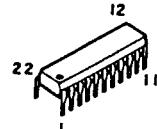
2SK246



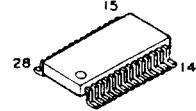
TC74HCU04AF



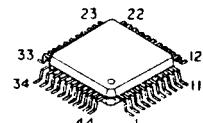
CXA1571S



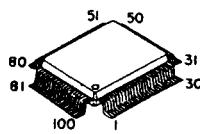
SM5843AS1



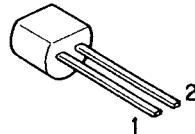
KAN04



CXD2545Q

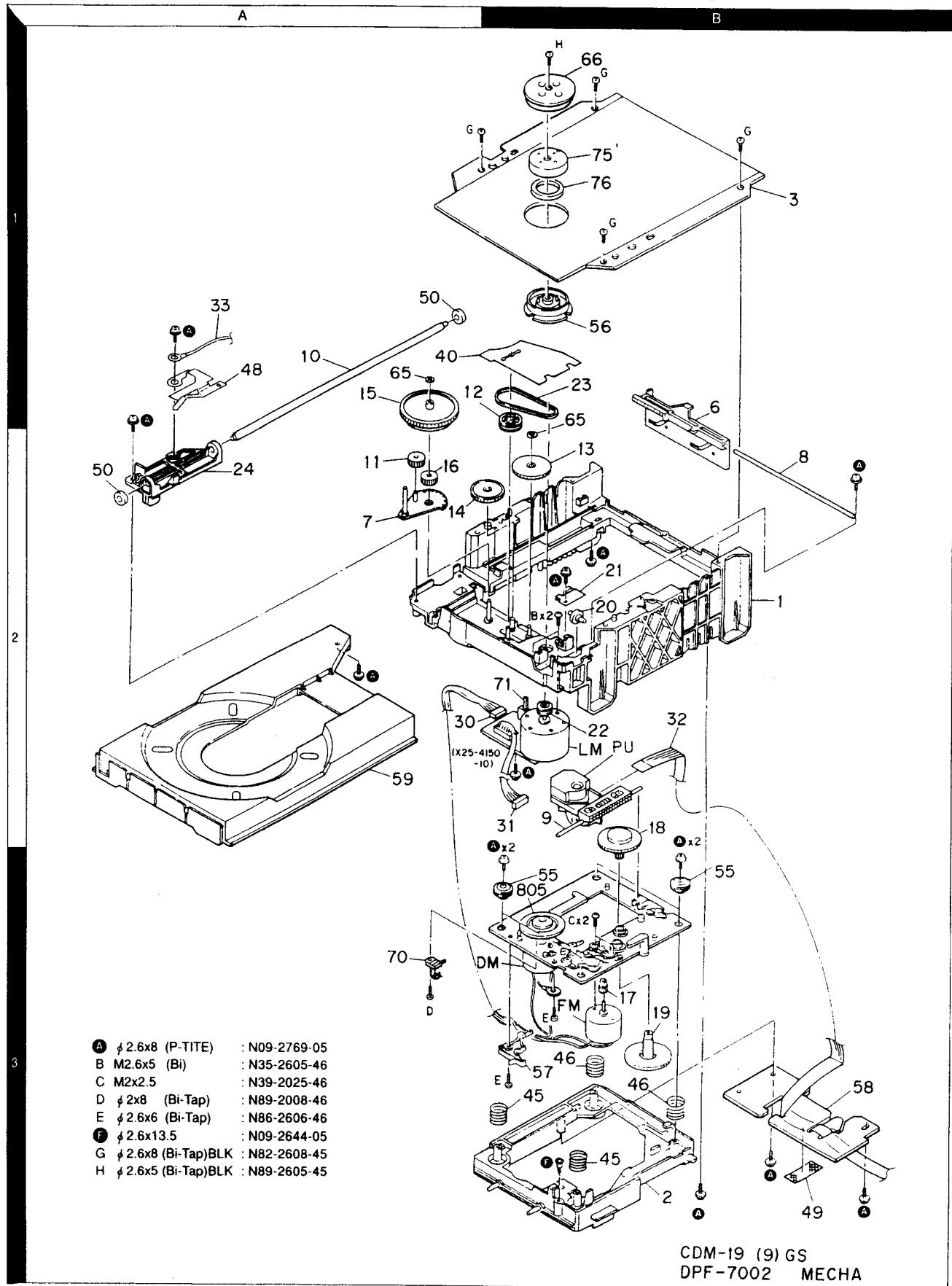


ICP-N10



DP-7090

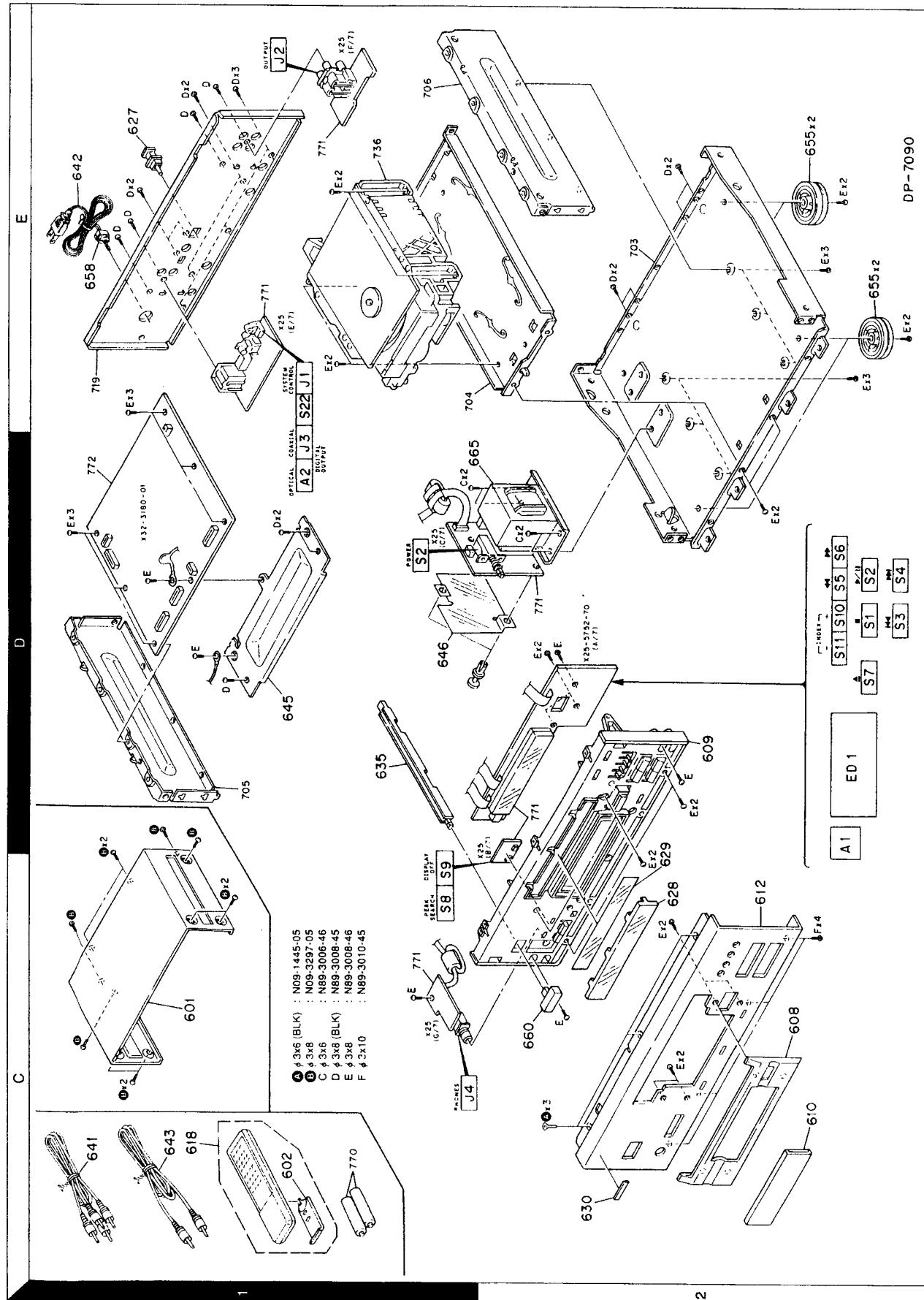
EXPLODED VIEW (MECHANISM)



Parts with the exploded numbers larger than 700 are not supplied.

DP-7090

EXPLODED VIEW (UNIT)



Parts with the exploded numbers larger than 700 are not supplied.

DP-7090

PARTS LIST

②

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

Ref. No	Add- ress	New Parts	Parts No.	Description	Desti- nation	Re- marks	Ref. No	Add- ress	New Parts	Parts No.	Description	Desti- nation	Re- marks
601	1C	*	A01-3325-01	METALLIC CABINET			C1			CE04KWN/A101M	ELECTRO	1000UF	10WV
602	1C	*	A09-0170-08	BATTERY COVER			C2			CQ83KWT/A101M	ELECTRO	1000UF	10WV
			A09-0170-08	DRESSING PANEL			C3	△	5	C91-1488-05	MYLAR	6800PF	250VAC
608	2C	*	A21-1906-03	DRESSING PANEL ASSY			C4			CQ83FMG1H103J	MYLAR	0.010UF	
609	2D	*	A21-1911-03	SUB PANEL			C5			CK45FF1H103Z	CERAMIC	0.010UF	2
			A22-1723-21	PANEL ASSY			C6			CQ83FMG1H104J	MYLAR	0.10UF	
610	2C	*	A29-0823-14	PANEL			C7			CK45FB1H102K	CERAMIC	1000PF	J
			A60-0923-02	REMOTE CONTROLLER ASSY			C11	△	14	CK45FB1H102K	CERAMIC	1000PF	K
611	2C	*	A70-1071-05	ESCUTCHEON			C15			CC45FSL1H224J	CERAMIC	220PF	J
			B07-2305-04	ESCUTCHEON			C17			C92FV1H224J	MF-C	0.22UF	
612	1E	*	B07-2306-04	OPTICAL OUTPUT TERMINAL CAP			C21	△	22	E40-4245-05	PIN ASSY		
			B09-0087-05	FRONT GLASS			C24			E11-0188-05	MINIATURE PHONE JACK(2P LENGTH		
613	1C	*	B10-2243-13	COLOR FILTER			CN1			E11-0188-05	PHONE JACK		
			B11-0322-03	KENWOOD BADGE			CN1			E11-0188-05	PHONE JACK		
627	2C	*	B43-0302-04	WARRANTY CARD			CN1			E11-0188-05	(3P)		
			B43-0302-04	CAUTION CARD (PL SENTENCE)			CN1			E11-0188-05	HOLDER		
628	2C	*	B58-0966-13	INSTRUCTION MANUAL(ENGLISH)			CN1			E11-0188-05	FERRITE CORE		
			B58-0966-13	INSTRUCTION MANUAL(F.G.D.I.)			CN1			E11-0188-05	FERRITE CORE		
630	2C	*	B60-2752-00	EXTENSION SHAFT			CN1			E11-0188-05	FERRITE CORE		
			B60-2752-00	LEAD PLATE			CN1			E11-0188-05	RESONATOR (4.194MHZ)		
635	1D	*	D21-1447-03	AUDIO CORD			CN1			E11-0188-05			
			E29-1618-04	AC POWER CORD			CN1			E11-0188-05			
641	1C	*	E30-0305-05	AC POWER CORD			CN1			E11-0188-05			
			E30-2592-15	CORD WITH PLUG			CN1			E11-0188-05			
642	1E	*	E30-2721-05	BLIND PLATE			CN1			E11-0188-05			
			E30-2733-05	INSULATING BOARD			CN1			E11-0188-05			
645	1D	*	F19-1065-03	NON-WOVEN FABRIC			CN1			E11-0188-05			
			F20-1483-04	SOFT TAPE (40X92)			CN1			E11-0188-05			
646	1D	*	G10-0146-04	CUSHION			CN1			E11-0188-05			
			G11-0155-14	SOFT TAPE			CN1			E11-0188-05			
			G11-2269-04	POLYSTYRENE FOAMED FIXTURE			CN1			E11-0188-05			
			G11-2272-04	PACKING FIXTURE			CN1			E11-0188-05			
				PROTECTION BAG (235X350X0.03)			CN1			E11-0188-05			
				PROTECTION BAG			CN1			E11-0188-05			
				PROTECTION BAG			CN1			E11-0188-05			
				ITEM CARTON CASE			CN1			E11-0188-05			
				ITEM CARTON CASE			CN1			E11-0188-05			
				FOOT POWER CORD BUSHING			CN1			E11-0188-05			
				WIRE BAND			CN1			E11-0188-05			
655	2E	*	J02-1168-03	KNOB (BUTTON)			CN1			E11-0188-05			
	1E	*	J42-0083-05	POWER TRANSFORMER			CN1			E11-0188-05			
			J61-0307-05	LED			CN1			E11-0188-05			
658	1D	*	K27-2178-04	DISPLAY UNIT (X25-5752-70)			CN1			E11-0188-05			
			L07-2171-05	LED			CN1			E11-0188-05			
D12			B30-1290-05	DISPLAY UNIT (X25-5752-70)			CN1			E11-0188-05			

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Ref. No	Add- ress	New Parts	Parts No.	Description	Desti- nation	Re- marks	Ref. No	Add- ress	New Parts	Parts No.	Description	Desti- nation	Re- marks
601	1C	*	A01-3325-01	METALLIC CABINET			C1			CO93EMG1H103J	MYLAR	0.010UF	J
602	1C	*	A09-0170-08	BATTERY COVER			C2			CO92EV1H103J	MYLAR	0.12UF	J
			A09-0170-08	DRESSING PANEL			C3			CO93FMG1H103J	MYLAR	0.10UF	J
608	2C	*	A21-1906-03	DRESSING PANEL ASSY			C4			CF92FV1H124J	MYLAR	0.12UF	J
			A21-1911-03	SUB PANEL			C5			CO93FMG1H103J	MYLAR	0.10UF	J
609	2D	*	A22-1723-21	PANEL ASSY			C6			CO93FMG1H104J	MYLAR	0.10UF	J
			A70-1071-05	REMOTE CONTROLLER ASSY			C7			CO94KWN/A101M	ELECTRO	1000PF	J
610	2C	*	A29-0823-14	PANEL			C8			CO94KWT/A101M	ELECTRO	1000PF	J
			A60-0923-02	REMOTE CONTROLLER ASSY			C9	△	5	CO94KWN/A101M	ELECTRO	1000PF	J
611	2C	*	A70-1071-05	ESCUTCHEON			C10			CO94KWT/A101M	ELECTRO	1000PF	J
			B07-2305-04	ESCUTCHEON			C11	△	14	CO94KWN/A101M	ELECTRO	1000PF	J
612	1E	*	B07-2306-04	OPTICAL OUTPUT TERMINAL CAP			C12			CO94KWN/A101M	ELECTRO	1000PF	J
			B09-0087-05	FRONT GLASS			C13			CO94KWN/A101M	ELECTRO	1000PF	J
613	1C	*	B10-2243-13	COLOR FILTER			C14			CO94KWN/A101M	ELECTRO	1000PF	J
			B11-0322-03	KENWOOD BADGE			C15			CO94KWN/A101M	ELECTRO	1000PF	J
627	1E	*	B43-0302-04	WARRANTY CARD			C16			CO94KWN/A101M	ELECTRO	1000PF	J
			B43-0302-04	CAUTION CARD (PL SENTENCE)			C17			CO94KWN/A101M	ELECTRO	1000PF	J
628	2C	*	B58-0966-13	INSTRUCTION MANUAL(ENGLISH)			C18			CO94KWN/A101M	ELECTRO	1000PF	J
			B58-0966-13	INSTRUCTION MANUAL(F.G.D.I.)			C19			CO94KWN/A101M	ELECTRO	1000PF	J
630	2C	*	B60-2752-00	EXTENSION SHAFT			C20			CO94KWN/A101M	ELECTRO	1000PF	J
			B60-2752-00	LEAD PLATE			C21			CO94KWN/A101M	ELECTRO	1000PF	J
635	1D	*	D21-1447-03	AUDIO CORD			C22			CO94KWN/A101M	ELECTRO	1000PF	J
			E29-1618-04	AC POWER CORD			C23			CO94KWN/A101M	ELECTRO	1000PF	J
641	1C	*	E30-0305-05	AC POWER CORD			C24			CO94KWN/A101M	ELECTRO	1000PF	J
			E30-2592-15	CORD WITH PLUG			C25			CO94KWN/A101M	ELECTRO	1000PF	J
642	1E	*	E30-2721-05	BLIND PLATE			C26			CO94KWN/A101M	ELECTRO	1000PF	J
			E30-2733-05	INSULATING BOARD			C27			CO94KWN/A101M	ELECTRO	1000PF	J
645	1D	*	F19-1065-03	NON-WOVEN FABRIC			C28			CO94KWN/A101M	ELECTRO	1000PF	J
			F20-1483-04	SOFT TAPE (40X92)			C29			CO94KWN/A101M	ELECTRO	1000PF	J
646	1D	*	G10-0146-04	CUSHION			C30			CO94KWN/A101M	ELECTRO	1000PF	J
			G11-0155-14	SOFT TAPE			C31			CO94KWN/A101M	ELECTRO	1000PF	J
			G11-2269-04	POLYSTYRENE FOAMED FIXTURE			C32			CO94KWN/A101M	ELECTRO	1000PF	J
			G11-2272-04	PACKING FIXTURE			C33			CO94KWN/A101M	ELECTRO	1000PF	J
				PROTECTION BAG (235X350X0.03)			C34			CO94KWN/A101M	ELECTRO	1000PF	J
				PROTECTION BAG			C35			CO94KWN/A101M	ELECTRO	1000PF	J
				PROTECTION BAG			C36			CO94KWN/A101M	ELECTRO	1000PF	J
				ITEM CARTON CASE			C37			CO94KWN/A101M	ELECTRO	1000PF	J
				ITEM CARTON CASE			C38			CO94KWN/A101M	ELECTRO	1000PF	J
				FOOT POWER CORD BUSHING			C39			CO94KWN/A101M	ELECTRO	1000PF	J
				WIRE BAND			C40			CO94KWN/A101M	ELECTRO	1000PF	J
655	2E	*	J02-1168-03	KNOB (BUTTON)			C41			CO94KWN/A101M	ELECTRO	1000PF	J
	1E	*	J42-0083-05	POWER TRANSFORMER			C42			CO94KWN/A101M	ELECTRO	1000PF	J
			J61-0307-05	LED			C43			CO94KWN/A101M	ELECTRO	1000PF	J
658	1D	*	K27-2178-04	DISPLAY UNIT (X25-5752-70)			C44			CO94KWN/A101M	ELECTRO	1000PF	J
			L07-2171-05	LED			C45			CO94KWN/A101M	ELECTRO	1000PF	J
D12			B30-1290-05	DISPLAY UNIT (X25-5752-70)			C46			CO94KWN/A101M	ELECTRO	1000PF	J

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

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Ref. No	Add- ress	New Parts	Parts No.	Description	Desti- nation	Re- marks	Ref. No	Add- ress	New Parts	Parts No.	Description	Desti- nation	Re- marks
601	1C	*	A01-3325-01	METALLIC CABINET			C1			CO93EMG1H103J	MYLAR	0.010UF	J
602	1C	*	A09-0170-08	BATTERY COVER			C2			CO92EV1H103J	MYLAR	0.12UF	J
			A09-0170-08	DRESSING PANEL			C3			CO93FMG1H103J	MYLAR	0.10UF	J
608	2C	*	A21-1906-03	DRESSING PANEL ASSY			C4			CF92FV1H124J	MYLAR</td		

PARTS LIST

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* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.
Die Teile ohne **Parts No.** werden nicht geliefert.

Ref. No	Parts No	Parts No.	Description	Desti- nation	Re- marks
New Parts	Add- ress				
CN1	E40-4296-05		FLAT CABLE CONNECTOR		
CN4	E40-4294-05		FLAT CABLE CONNECTOR		
CN5	E40-3253-05		PIN ASSY		
CN7	E40-487-05		PIN ASSY		
CN8	E40-480-05		PIN ASSY		
CN10-12	E40-425-05		FLAT CABLE CONNECTOR		
CN20	E40-445-05		PIN ASSY		
CN21	E40-3248-05		FLAT CABLE CONNECTOR		
E1 -3	J11-0098-05		WIRE CLAMPER		
L1	L92-0017-05		FERRITE CORE		
L3	L92-0017-05		FERRITE CORE		
L5	L40-229-17		SMALL FIXED INDUCTOR		
L77	L77-2133-05		CRYSTAL RESONATOR(16.3844MHZ-1		
R89	RD14NB2E1R0J	RD	4.7	J 1/4W	
R91	RD14NB2E1R0J	RD	1.0	J 1/4W	
R91	RD14NB2E1R0J	RN	3.90K	F 1/6W	
R137-152	RD14NB2E1R0J	RD	1.0	J 1/4W	
R155	RD14NB2E1R0J	RD	1.0	J 1/4W	
R157	RD14NB2E1R0J	RD	1.0	J 1/4W	
R157-159	RD14NB2E1R0J	RD	1.0	J 1/4W	
R209-212	RD14NB2E10U	RD	100	J 1/4W	
R311	RD14NB2E10U	RD	10	J 1/4W	
VR1	R12-3586-05		TRIMMING POT. (22K)		
D4 -9	HSS104	DIODE			
D4 -9	1SS133	DIODE			
D11	D3SB420F03	DIODE			
D11	RBV-402LFA	DIODE			
D12	1B4B41	DIODE			
D13	HSS104	DIODE			
D13	1SS133	DIODE			
D14	S5688B	DIODE			
D15	1SR139-400	DIODE			
D16	MT215.6(B)	ZENER DIODE			
D18	UZ-5.6BSB	ZENER DIODE			
D19	MT215.1(B)	ZENER DIODE			
D19	UZ-5.1BSB	ZENER DIODE			
D20	HSS104	ZENER DIODE			
D20	1SS133	ZENER DIODE			
D20	MT218.2(B)	ZENER DIODE			
D20	UZ-8.2BSB	ZENER DIODE			
D22	UZ-5.6BSB	ZENER DIODE			
D22	MT215.1(B)	ZENER DIODE			
D25	UZ-5.1BSB	ZENER DIODE			
D26	HSS104	ZENER DIODE			
D26	1SS133	ZENER DIODE			
D26	MT218.2(B)	ZENER DIODE			
D27	UZ-3.9BSB	ZENER DIODE			
D27	UZ-3.9BSB	ZENER DIODE			
D30	HSS104	ZENER DIODE			
D30	1SS133	ZENER DIODE			
D35	MT2139(B)	ZENER DIODE			
D60	UZ-3.9BSB	ZENER DIODE			
D61	UZ-5.1BSB	ZENER DIODE			
D61	TAB409S	MOS-IC			
D61	IC74HC04AF	IC-HEX INVERTER SMD			
C1	CXD2545Q	MOS-IC			
C2					
C3					
C4 .5	TAS410AK	ANALOGUE IC			
C6	PS1993D-T	ANALOGUE IC			

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

Δ indicates safety critical components

 indicates safety critical components.

DP-7090

PARTS LIST

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Ref. No.	Add. Ass.	New Parts	Parts No.	Description	Desti- nation	Ref. marks
23	1B		D16-0309-03	BELT RETAINER		
24	2A		D23-0267-03	WIRING HARNESS		
30	2A		E31-7868-25	FLAT CABLE		
31	2B		E35-1542-05	WIRING HARNESS		
32	2B		E35-1543-05	NON-WOVEN FABRIC		
33	1B		E35-1583-15	PIN ASSY		
34			E40-3263-05	BLIND PLATE		
			F19-1027-04	COMPRESSION SPRING (FRONT) COMPRESSION SPRING (REAR)		
				FLAT SPRING		
				CUSHION		
40	1A			INSULATOR		
45	3B		G01-3326-14	CLAMPER		
46	3B		G01-3327-14	BRACKET		
48	1A		G02-1020-04	BRACKET		
49	3B		G10-0146-04	TRAY ASSY		
50	1A,2A		G11-2038-04	FLAT WASHER		
55	3B		J02-1058-15	FLAT WASHER		
56	1B		J11-0173-33	LEVER SWITCH		
57	3B		J19-3335-05	SUB CHASSIS ASSY (DISC MOTOR)		
58	3B	*	J19-5708-14	DC MOTOR (FEED MOTOR)		
59	2A		J59-0088-23	DC MOTOR (LOADING MOTOR)		
65	1B		N19-0366-04	OPTICAL PICKUP HEAD (KSS-213B)		
66	1B		N19-1292-04			
70	3A		S33-1022-05			
	DM		A11-0733-05			
	FM		T42-0532-05			
	LM		T42-0530-05			
	PU		T25-0041-05			

K : USA P : Canada
 E : Europe T : Europe
 X : Australia M : Other Areas
 Y : AA/EE(Europe) V : Scandinavia
 Y : PX(Far East, Hawaii) R : Mexico
 Y : AA/EE(Europe) G : Germany
 Δ indicates safety critical components.

SPECIFICATIONS

[Format]

System Compact disc digital audio system
 Laser Semiconductor laser

[D/A Convertors]

D/A Conversion 20 Bit
 Oversampling 32 fs (1411.2 kHz)

[Audio]

Frequency response 4Hz ~ 20 kHz, ± 0.3 dB
 Signal to noise ratio More than 120 dB
 Dynamic range More than 99 dB
 Total harmonic distortion + noise Less than 0.002 % (at 1 kHz)
 Channel separation More than 100 dB (at 1 kHz)

Note :

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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Wow & flutter Unmeasurable Limit

Output level / impedance

Variable 0 ~ 2 V / 0.3 k Ω

Digital output

Coaxial 0.5 V p-p / 75 W

Optical -15 dBm ~ -21 dBm

(Wave length 660 nm)

Headphone output (Max.) 20 mW (32 Ω)

[General]

Power consumption 20 W
 Dimensions W: 440 mm (17-5/16")
 H: 147 mm (5-13/16")
 D: 366 mm (14-7/16")
 Weight (Net) 7.6 kg (16.7 lb)

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